

respectively were 3s. 8½d. and 2s. 1d. The chief cause of this marked difference is the high "frequency" in Co. Armagh.

6. The average cost per prescription form fell from 15.89d. in December, 1930, to 13.02d. in December, 1931, i.e., a reduction of 2.87d. per form.

(NOTE.—A saving of 1d. per insured person means a total saving of £1,500 a year. Assuming the frequency to be 2.40, a saving of 1d. per form would result in a saving of 2.4 times £1,500, i.e., £3,600.)

In conclusion, this brief account shows that we have already gone a long way to surmount many of the difficulties inevitably associated with such a task as the introduction of medical benefits. Attention has been drawn to some points in medical certification which should be specially remembered. In the matter of economy in the cost of drugs, while it is satisfactory to note a continuous and marked improvement during the year, it is believed that there is still room for further economy without any resulting therapeutic loss to the patients.

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## AN IMPROVED MECHANICAL HAND

IN no branch of the ancillary branches of surgery has greater progress been made than in the fitting of artificial limbs to replace those lost through accident or war. This is particularly true in the making of mechanical arms. Yet even with the progress made during and since the great world war, further improvements have been introduced. The P.K. Arm, Limited, Belfast, are again in the front of this movement. They have introduced a new model hand which is constructed with a new silent operating mechanism for closing and opening. Like the original model, the hand is constructed of tapering spiral springs sewn to a backing of leather, with flat steel clock springs introduced between the spiral springs and the leather to give rigidity. Bowden steel wire cables are attached to fibre finger tips, and close the fingers when tightened against soft rubber palm pads, giving a secure grasp of any object or tool placed in the hand.

The new silent operating mechanism for closing and opening the hand consists of a nut and screw. The nut having the finger cables attached to it is so constructed that it is disengaged from, and slides up, the screw when it is pushed by the finger cables for quick adjustment when desired, but it is more fully tightened by rotating the screw. It will be noted that the latter has an inclined stem or spindle rotably mounted in a wrist block attached to the artificial arm, and can be revolved by a circular oscillatory movement of the hand or of the forearm, or both.

Intermediate between the hand and the wrist block a disc is attached to the screw, with which it revolves. Two ball locks are provided with engaging indentations on either face of the locking disc, so that either or both wrist and hand can be locked.

This arrangement allows the hand to be set in any position desired, or left free to swivel with the object held, an improvement which greatly increases the utility of the hand for many operations. The P.K. Arm, Limited, are to be congratulated on the results of their labour, for a more serviceable mechanical hand could not be desired.